National Institute of Environmental Health Sciences

Public health benefits of strategies to reduce greenhouse-gas emissions: Overview and implications for policy makers

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Abstract:

This Series has examined the health implications of policies aimed at tackling climate change. Assessments of mitigation strategies in four domains-household energy, transport, food and agriculture, and electricity generation-suggest an important message: that actions to reduce greenhouse-gas emissions often, although not always, entail net benefits for health. In some cases, the potential benefits seem to be substantial. This evidence provides an additional and immediate rationale for reductions in greenhouse-gas emissions beyond that of climate change mitigation alone. Climate change is an increasing and evolving threat to the health of populations worldwide. At the same time, major public health burdens remain in many regions. Climate change therefore adds further urgency to the task of addressing international health priorities, such as the UN Millennium Development Goals. Recognition that mitigation strategies can have substantial benefits for both health and climate protection offers the possibility of policy choices that are potentially both more cost effective and socially attractive than are those that address these priorities independently.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Food/Water Security, Indoor Environment, Unspecified Exposure

Air Pollution: Ozone, Particulate Matter, Other Air Pollution

Air Pollution (other): SO42-; CO

Food/Water Security: Livestock Productivity, Nutritional Quality

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Co-Benefit/Co–Harm (Adaption/Mitigation):

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Co-Benefit/Co-Harm (Family Planning/Population Reduction):

specification of beneficial or harmful impacts to health resulting from efforts to promote family planning or reduce population growth as a climate change adaptation or mitigation measure

A focus of content

Health Impact:

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Developmental Effect, Diabetes/Obesity, Injury, Mental Health/Stress, Morbidity/Mortality, Respiratory Effect

Cardiovascular Effect: Other Cardiovascular Effect

Cardiovascular Disease (other): Ischemic heart disease

Developmental Effect: Reproductive, Other Functional Deficit

Mental Health Effect/Stress: Mood Disorder

Respiratory Effect: Chronic Obstructive Pulmonary Disease, Lung Cancer, Other Respiratory Effect

Respiratory Condition (other) : Acute lower respiratory tract infection

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Mitigation

Model/Methodology:

type of model used or methodology development is a focus of resource

Cost/Economic, Exposure Change Prediction, Methodology, Outcome Change Prediction

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Medium-Term (10-50 years)